

National FAA Safety Team presents:

# **AirVenture 2023 Forum - Navigation During a GPS Outage**

The use of the Global Positioning System (GPS) for aircraft navigation has increasingly obviated the need for ground-based navigation aids for most domestic en route and terminal flights under instrument flight rules. The result of development and deployment of satellite navigation is that many aviation users no longer use Very High Frequency (VHF) Omnidirectional Ranges (VORs) for normal navigation and could potentially navigate safely using augmented GPS. In this case, the Federal Aviation

Administration (FAA) could remove all or nearly all the over 900 federally owned and operated VORs at some time in the future when sufficient GPS equipment exists. However, the risk of outages of GPS and other Global Navigation Satellite System (GNSS) systems is well known, both from scheduled interference and unscheduled events.

Accordingly, the FAA is planning to maintain a backup navigation capability to provide service in case of a GPS outage. An overall strategy for navigation in the Next Generation (NextGen) timeframe was published in a notice in the Federal Register in 2016.

The FAA has already started removing VORs and intends to remove approximately one-third of the current VORs by 2030. This presentation

## Event Details

**Wed, Jul 26, 2023 - 12:00 CDT**

**FAA Safety Center/EAA**

**AirVenture**

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provides an overview of the set of VORs for retention in a Minimum Operational Network (MON) for VOR-equipped (i.e., non-Distance Measuring Equipment (DME)/DME-equipped) aircraft.

The presentation also includes information on the use of DME/DME navigation and the plans for retaining a network of DMEs in the future for use, principally by airline aircraft, during a potential GPS outage.

WINGS/AMT credit available!

To receive WINGS/AMT credit fill out attendance sheet available at the Forum entrance.

**Directions:** The FAA Safety Center is centrally located on the EAA AirVenture grounds on the South side of the control tower. We are the large tan building with the rooftop deck facing the runway. Forums entrance is on the west side of the building.

Prior to attending a safety seminar, please review and abide by current CDC, State and local health guidelines.

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